MINOS Control Room at Fermilab

MINOS Collaboration Meeting

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The Soudan Control Room

- The Soudan Control Room is multi-purpose
  - Controlling the experiment
    - DAQ, Online Monitoring, DCS, CRL
    - Controlling far detector only at present
  - Constructing the experiment
  - General office space
    - Printers, copier, and administrative amenities
    - Telephone lines
    - Desks, chairs, etc. (never enough)

Outside the Soudan Control Room

Graduate Student in Natural Habitat

Another Model: Mini-BooNE

- Now running in WH10SW

- Computers:
  - One for beam status (4 screens)
  - One for DAQ and CRL

- Television:
  - One for Channel 13
  - One for closed-circuit cameras on critical components (4)

Control Room at Fermilab

- Basic Control Requirements (for both detectors)
  - DAQ
  - Online Monitoring
  - DCS
  - CRL
  - Other Computers

Control Room Evolution

- Near Term

  – Build and run the far detector with cosmic rays.

- Intermediate Term

  – Run the far detector with cosmic rays.

  – Build and run the near detector with cosmic rays.

- Long Term

  – Run both detectors with the NuMI beam.

DAQ Requirements

The DAQ group will provide computers for run control and monitoring for the near detector.

– DAQ machine runs Linux

– Scheduled to install in 2003.

• Will use VNC to control far detector DAQ.

DCS Computer

- Windows machine running Ifix as at far detector.
  - Separate Ifix windows for each detector (near and far)
  - VNC window allows control of far detector DCS machine.
  - MySQL databases are kept on both machines.
  - UMD will provide computer and install Ifix.

Control Room Logbook

- There will be only one logbook for the experiment, maintained on CRL.
  - CRL is running on a "dedicated" computer at Soudan.
  - The WHCR will also have a dedicated CRL machine, but files must be shared, probably via afs.

- Detector construction as well as operation is logged in CRL. A third CRL machine in the Near Detector Hall is highly advisable.

Real Estate in Wilson Hall

- The Beauty Parlor (WH12NW) is to become available after video equipment is moved.

- The north half of this room will provide ample floor space for the WHCR.
  - The room will be divided
  - The other half will be for other use TBD

- Existing phone and ethernet lines may be adequate.

Cost and Schedule

- Estimate $10k to divide and prepare the room; another $10k to set up CR.

- Budgetary constraints will probably delay occupancy until late spring 2003.